

Attorney Docket 103



AP/3724
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Patent Application:

Applicant: Joseph J. Solon

ART UNIT 3724

S.N. 10/005,696

EXAMINER ISAAC H. HAMILTON

Filed: Dec. 7, 2001

*11/5/03
JMH*

TITLE: METHODS AND APPARATUS FOR PROCESSING RECLAIMED
TIRE TREAD STRIPS

To The Commissioner of Patents and Trademarks:

RECEIVED

Dear Sir:

OCT 31 2003

TECHNOLOGY CENTER R3700

APPEAL BRIEF under 37 CFR 1,192 with Appeal Brief fee of \$165.00 under 1.17(c)

Applicant hereinafter submits three copies of the Appeal Brief related to the rejection of Claims 10-12, 14, 15 and 18 in the Final Rejection of July 30, 2003, herein appealed.

The Notice of Appeal is filed concurrently herewith.

The appeal brief fee of \$165.00 is enclosed.

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(1) Real party in interest.

The real party in interest is the assignee Interstate Recycling Corp., 107 South Street, Auburn, NY 13021, a corporation of Nevada. Assignment recorded Feb. 21, 2002, REEL/FRAME: 012595/0496.

(2) Related appeals and interferences.

There are no related appeals or interferences.

Do they
and shall
together?

(3) Status of claims.

At the time of the Final Rejection:

Withdrawn Claims 1-9 were cancelled.

Claims 13 and 16 were cancelled.

Claim 17 is herewith cancelled to reduce issues on appeal.

The Final Rejection of the remaining Claims 10, 11, 12, 14, 15 and 18, identified in Appendix (9), are herewith appealed.

Claim 11 is non-elected → Claims 10-12 are rejected as anticipated by Schoendelen 1, 578,854 under 35 USC 102(b).

Claims 14, 15 and 18, dependent upon parent Claim 10, are directed to the non-elected Species of Figures 5 and 6 and are thus properly retained and asserted as patentably dependent upon allowable generic Claim 10.

(4) Status of amendments.

The first response after Final Rejection, filed Aug. 4, 2003, was not entered (Advisory Action of Aug. 15, 2003).

The second response after Final Rejection, filed Aug. 18, 2003, was not entered (Advisory Action of Sept 18, 2003)

(5) Summary of invention.

This invention provides a simplified specialty hand fed tire tread strip cutting and edge trimming machine 12 for processing a raw rectangular raw tire tread strip 10 having two shorter ends and two longer sides which are cut from salvaged tire carcasses. This machine cuts off the edge portions of the raw tread strip along the strip length to produce a narrower reshaped rectangular tread strip product 15 having precision width suitable for stacking on top of each other to form beams, p. 3, last full paragraph and Figs. 1 and 2.

Steel belted tire strips present serious difficulties in handling and cutting cleanly through the tread strip thickness because of the toughness and accompanying flexibility of the tire fabric and the embedded steel wires. Applicant resolves this problem at a single tire tread strip cutting machine station, which grasps manually fed strips (last line, p.8) with a set of rotating cutting wheels 17, 18 (Fig. 1) spaced inside opposite longitudinal edges of the raw strip 10 at positions determining the width of the processed narrower strip 15. Accompanying biased together strip pulling rollers 30, 31 having knurled grasping surfaces 33 (Fig.5) aid in pulling the raw strip through the transit path of the tire

tread strips through the single cutting station (Figs. 1 and 5).

Other tread strip cutting/shaping is done by roller dies 36, 37, and/or carbide blades 35 (p. 7, last paragraph through second paragraph p.8), which cut through the tire tread strip and embedded steel wires at sequential positions along the length of the tire tread strip as it is pulled through its transit path at the cutter station. These cutting/shaping devices resolve the difficult task of cleanly cutting (a) apertures through the thick, tough flexible tire tread fabric having the embedded steel wires as the tire tread strip is pulled through the single cutter station, which thus produces apertures along the length of the processed narrower strip having a precisely defined width and (b) cutting edge indentations along the length of the tire tread strip for relaxing the tire tread strips which tend to curve because of the residual memory bias inherited from the tire carcass shape and thus the narrower tire tread strip (15) will relax and tend to lie flat.

Another such desirable strip cutter operable on the tire tread strip on its transit path through the cutter wheels 17, 18 is the tread thickness knife 42 (Fig. 6) which produces processed tire tread strips of constant thickness.

It is noted that both Figure 2 and Figure 5 are related end views looking into the single strip feeder width slitter station (40), and that Figures 1 and 6 define the slitter station features. Thus, parent Claim 10 encompasses the edge trimmer, grasping means, transit path and the various strip cutting and shaping means incorporated in all six figures and thus is generic to the features defined in dependent Claims 11, 12, 14, 15 and 18.

(6) Issues.

The following reversible errors of the Examiner are herewith taken in issue:

I. The rejection of Claims 10-12 under 35 USC 102(b) as being anticipated by Schoendelen 1,578,854.

I. a. The Examiner's interpretation of the Schoendelen disclosure.

I. b. The Examiner's assertion that applicant's claimed "tread strip" is shown in Fig. 3 of Schoendelen.

I. c. The Examiner's aggregative rejection of Claims on isolated features of the Schoendelen disclosure, without considering the interaction of claimed features in combination in a novel tread strip process removing edge portions of thick, rugged and resilient raw steel belted tire tread strips to produce a narrower strip of precise width along the entire length of the tire tread strips being processed.

I. d. Schoendelen does not disclose and therefore cannot anticipate the indentation of the strips along the longer edges as defined in Claim 11, or the two shaping devices for shaping the tread strips in different ways as defined in Claim 12.

II. The auxiliary issue of allowance of (non-elected) Claims 14, 15 and 18 in view of the presentation of allowable generic Claim 10.

III. The 35 USC 103(a) rejection of Claim 17.

Kindly cancel Claim 17 herewith to reduce issues on appeal.

(7) Grouping of claims.

Each of the retained claims constitutes a separate interacting combination of features to be considered on its own merits. It is noted that Claim 10 is generic to all other claims and therefore all retained claims are allowable as a group if Claim 10 is allowed.

(8) Arguments.

I. a. The Schoendelen Disclosure:

A special purpose two station (punch 18 and scrap slitter knives 49) waste remover system transports thin rectangular tin plates respectively to punch out a set of can ends 62, Fig. 3. and remove a plurality of flimsy scrap portions 61 between the ends of a central row. There is no teaching whatsoever of removing opposite edges of a raw tire tread strip to produce from applicant's raw tire tread strip 10 an integral narrower central strip 15 as the useful output product.

Nor is there any teaching whatsoever of hand feeding into a single cutting station a thick, tough resilient tire tread strip having embedded steel wires that must be cleanly cut. The reference conversely teaches an automatic feeding device to avoid transfer of the sheet by hand from the press. Thus only applicant teaches and claims a single cutter station whereas hand fed raw tire tread strip 10 is grasped by the cutting wheels 17, 18 which remove the centermost narrower tire tread strip 15 extending along the longitudinal length of the tire tread strip.

Accordingly the objective and structure of Schoendelen has only the common general feature of cutting edges from a rectangular sheet of material, and thus cannot anticipate the combinations of interacting elements defined in the various rejected claims.

I. b. The Examiner reversibly errs by designating the tin plate 26 having three rows of apertures of Schoendelen Fig. 3 as applicant's claimed tire tread strip in Claim 10 and thus giving no weight to applicant's claimed tire tread strips. |

Applicant claims rectangularly shaped tread strips salvaged from tire carcasses.

The Examiner has not in any way shown that the Schoendelen machinery for cutting sheets of tin plate to make can ends could operably transport, punch and remove outer longitudinal edges of the tough flexible wire embedded tire tread strips cut from abandoned tire carcasses or achieve the precise cutting of the steel wires embedded in the thick tough and flexible tire tread stock.

I. c. The Examiner reversibly errs in aggregatively rejecting claimed combinations of interacting elements for achieving a different output objective by isolating random features of Schoendelen taken out of context and neglecting to show how the claimed combinations as a whole are anticipated.

Using parent Claim 10 as an example: (1) the Schoendeler apparatus does not structurally provide a combination of interacting elements to produce a useful end product of a narrower tire tread strip 15 extending between two shorter ends of a raw

wider tread strip 10 with cutting means structure removing as scrap the outer edges of a wider raw tire tread strip 10. Conversely Schoendeler's scrap is a plurality of shortened centermost portions 61 of the apertured tin plates; (2) applicant's feeder means and associated grasping means comprising cutter wheels 17, 18 which grasp the shorter ends of the hand fed tire tread strips whereas conversely Shoendeler avoids hand feeding of the tin strips by using conveyor belt 29 to feed them into the slicing wheels 49, 51; (3) applicant produces "a (single) narrower rectangular shaped (tire tread) strip between said two shorter ends (of the tire tread strips)" as the centermost portion of a wider raw tire tread strip by discarding the removed tread strip portions along the two outer sides contrary to Schoendeler's structure.

Accordingly there is no *prima facie* showing of anticipation of applicant's combination claims as a whole in the Schoendeler disclosure.

there are apertures in the sheet

I. d. There is no disclosure in Schoendelen of the indentation of the outer edges of the narrower strip as defined in Claim 11 and therefore can be no anticipation.

Neither the indentation, nor the need for the indentation is disclosed in Schoendelen, wherein operatively the thin tin plate sheets thereof lie flat without such indentation motivated. Conversely because applicant's claimed tire tread strips have inherent memory of the tire carcass shape they tend to lie curved rather than flat without such indentations.

SUMMARY

It has been shown that Schoendelen 1,578,854 does not disclose the structure required to anticipate the whole combinational interacting set of elements defined in Claims 10-12 rejected under 35 USC 102(b), and that the Examiner has made reversible errors in the application of isolated claim elements selected from that reference in an environment out of context with applicant's claimed combinations as a whole.

For example, the Examiner has rejected these claims explicitly claiming the structure of applicant's tire tread strips cut from an abandoned tire carcass as anticipated by the entirely different structure of the Schoendelen Fig. 3 apertured tin plate 26 having three rows of can tops 52 cut therefrom. And furthermore the Examiner fails to consider for example the apparatus of interacting elements of Claims 10 and 11 as a whole wherein the problems of (a) cutting and shaping the tough, resilient and thick tire tread fabric embedded with steel wires and of (b) making a tire tread strip retaining the inherent memory of a curved tire carcass thus tending to lie in a curved posture to lie flat are resolved respectively.

Furthermore the Examiner erroneously applies Schoendelen's apparatus, that with conveyor 29 avoids hand feeding of his thin tin plate apertured work strip by hand, to anticipate applicant's combination of interacting elements for hand feeding the raw tire tread strip 10 for cutting off edges along its length to produce the narrower output tire tread strip 15.

Further evidence of reversible error of the Examiner in aggregatively applying out

of context Schoendelen features without consideration of applicant's claimed combinations of interacting elements as a whole is that the end product of the Schoendelen cutting apparatus is to remove the centermost located scrap portions 61 by cutting off the outer edges, whereas applicant's end product is the narrower centermost strip and the outer cut off edges is the waste product.

Accordingly applicant has fully overcome the 35 USC 102(b) rejection ground and thus patentably presents rejected claims 10-12 for allowance by reversal of the Examiner.

II. The auxiliary issue of allowance of (non-elected) claims 14, 15 and 18.

Based upon the allowance of generic parent claim 10, the claims 14, 15 and 18 directed to the non-elected species of Fig. 5 are properly allowable and allowance is respectfully solicited.

III. Claim 17 rejected under 35 USC 103(a)

Claim 17 is cancelled herewith to reduce issues and thus this rejection ground is not in issue.

CONCLUSION

Applicant has herein fully overcome the rejection of Claims 10-12, 14, 15 and 18 as anticipated by Schoendelen, and thus respectfully solicits that these claims be allowed by reversal of the Examiner.

Respectfully submitted, *Oct. 28, 2003*

Laurence R. Brown

Laurence R. Brown, Counsel of Record

Enc. \$165.00 Appeal Brief fee

Appendix Claims

(9) Appendix

Claims on appeal:

10. Apparatus for processing substantially rectangular shaped tread strips salvaged from tire carcasses having two shorter ends and two longer sides to obtain patterned strips of precise dimension and shape comprising in combination: power actuated strip feeder means for grasping one shorter end of the tread strips and passing them through a linear transit path, and strip shaping means along the transit path operable during transit of the strips through said linear transit path to remove tread strip portions along the two longer sides to produce a narrower rectangular shaped strip between said two shorter ends.

11. The apparatus of Claim 10 wherein the strip shaping means further comprises means for providing tread strips of uniform width from said rectangular shaped tread strips with indentation means operable at designated spacings near opposite edges of raw input tread strips as the strips pass through the transit path for indenting edges between said two shorter ends and producing longitudinal strip edges with relaxed tension thereby encouraging the narrower strip to lie flat.

12. Apparatus defined in Claim 10 wherein the strip shaping means comprises two sequential shaping devices for shaping the tread strips in different ways at two sequential stations along the strip transit path.

14. Apparatus as defined in Claim 10 wherein the shaping means comprises indentation means for introducing a set of longitudinally spaced indentation patterns extending along the longer sides of the tread strips.

15. The apparatus of Claim 14 wherein said tread strips have a tread surface and a surface opposite to the tread surface and wherein said indentation patterns comprise indentations in the surface of the tread strip opposite to the tread.

17. (Cancelled Currently)

18. Apparatus defined in Claim 10 wherein the shaping means comprises means for removing tread surface from the tread strip to establish tread strips of uniform thickness.